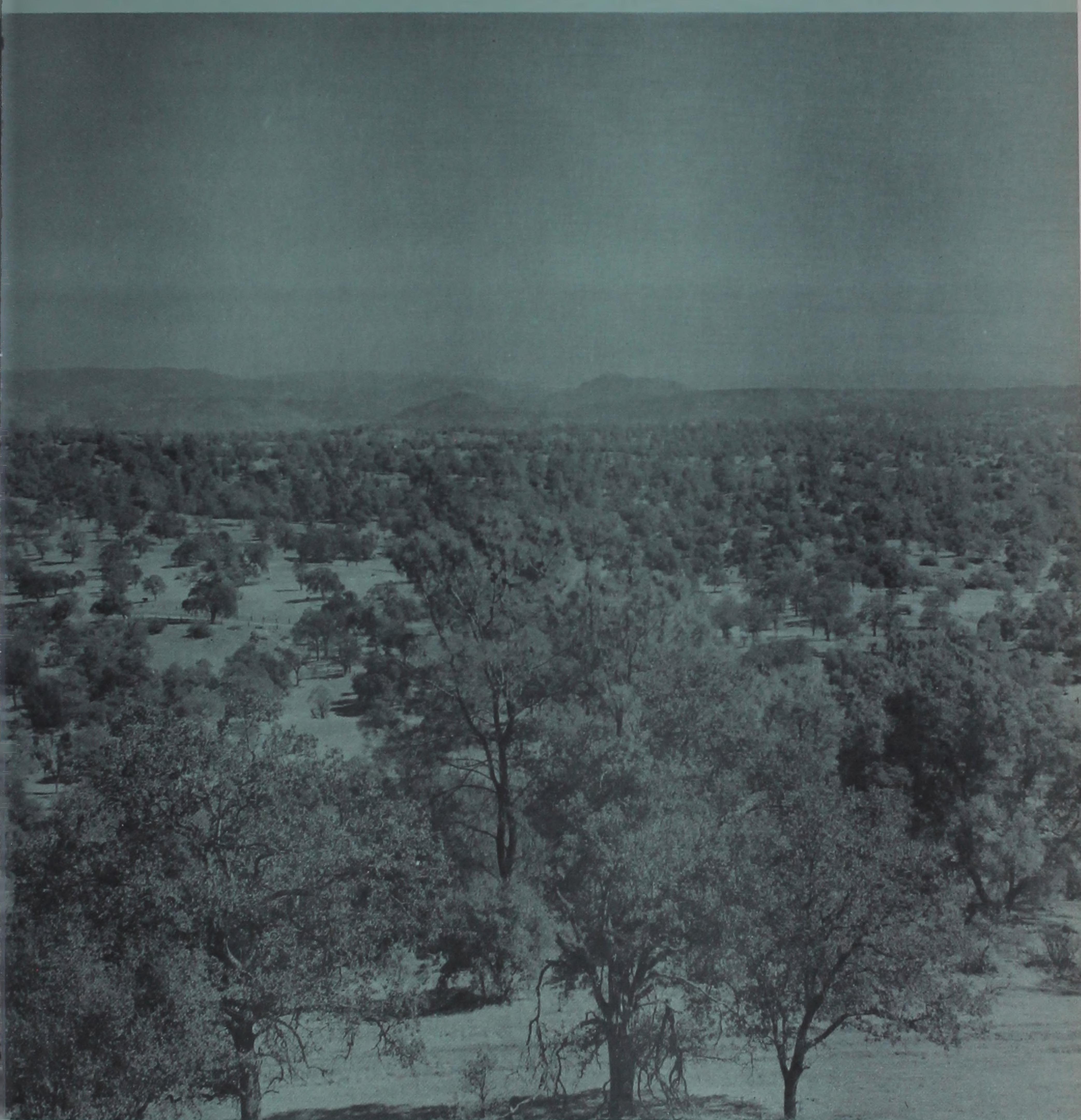


# **CHECKLIST OF PLANTS OF THE SAN JOAQUIN EXPERIMENTAL RANGE**

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MISCELLANEOUS PAPER NO. 23  
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## FOREWORD

This publication is the result of the efforts of many people distributed over 23 years. The plants named herein represent 58 different families, all present in some degree on the 4600-acre San Joaquin Experimental Range. Range research on any area involves many things, but high in priority always is the discovery, identification, and evaluation of plant species. This is frequently a continuing chore because conditions favorable to all plants seldom if ever occur, and many plants are so short-lived they are difficult to find. Thus the long period required to develop this list.

It is my hope, and I know the authors concur, that this publication will be of use to technicians and administrators.

E. J. Woolfolk, Chief  
Division of Range Management Research

A CHECK LIST OF PLANTS OF THE  
SAN JOAQUIN EXPERIMENTAL RANGE

by

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## PREFACE

The San Joaquin Experimental Range is located near the center of the State in the granite-soil section of the Sierra Nevada foothills. It is in Madera County, 28 miles north of Fresno, California. This 4600-acre experimental area was established in 1934 as a branch station of the California Forest and Range Experiment Station, U. S. Forest Service. Research aimed at increased production from California foothill range through improved management, fertilization, brush control, and livestock management has been carried out since establishment.

The area lies in the "annual grass type" and is characterized by grassy rolling hills with a sparse covering of trees and occasional dense stands of brush. It is in the lower part of the woodland zone between the treeless valley floor and the higher brush and timber belts.

The herbaceous ground cover consists mostly of annual grasses and forbs. In contrast, perennials dominate most western range areas. Ecologically speaking, the area is near the lower limits of the Upper Sonoran Zone. The elevation varies from 700 to 1700 feet, with most of the area lying between 1000 and 1500 feet. Exposures are generally southwesterly.

The drainage basin empties into a small tributary of the San Joaquin River. No permanent streams flow through the area, but springs are numerous and the small drainages carry surface flows during the winter months.

The slope soils are shallow, residual, of granitic origin, and are classed in the Vista series. The swale soils are deeper, alluvial, and are classed in the Visalia series. Both have a low water-holding capacity.

The climate is characterized by mild, rainy winters and hot, dry summers. Snow is rare. Seasonal precipitation usually begins in September and has averaged 19.4 inches, with extremes of 12.3 and 32.1 inches, during the past 23 years. On the average, over 70 percent of the precipitation falls during 4 months, December through March. From mid-May to mid-September there is practically no rain at all.

Seeds of most herbaceous plant species germinate with the first 1/2 to 1 inch of fall rain and grow slowly during the winter. The plants grow rapidly when warm temperatures return in March, reach maturity in April, and are mostly dry by mid-May.

Plant species listed in the text have been collected at the Range during the past 23 years. Standards of abundance for herbaceous vegetation are as follows:

Abundant -- species appears on at least 75 percent of sample quadrats.<sup>1/</sup> Only 3 species fall in this category.

Very common -- species appears on at least 15 percent of sample quadrats. There are 18 species in this category.

Common -- species appears on at least 1 sample quadrat.

Uncommon -- species appears each year on the Range and in most pastures, but infrequently in pasture samples.

Rare -- species appears in 1 or 2 locations on the Range, or in especially favorable years, but seldom if ever in herbage samples.

All plant species listed herein were identified by the Division of Range Management Research, U. S. Forest Service, Washington, D. C. The following authority was used for recent changes in nomenclature:

Abrams, Leroy. 1951. Illustrated Flora of the Pacific States. Stanford University Press, Stanford, California.

Botanical names in parentheses are synonyms which have been used at the Range. The following source was used for common names:

Kelsey, H. P., and Dayton, W. A. 1942. Standardized Plant Names. Second Edition. J. Horace McFarland Co., Harrisburg, Pennsylvania. 675 p.

Locally well established common names are also listed for some plants.

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GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	Occurrence	Habitat
<u>TYPHACEAE</u> Cattail family		
<u>Typha latifolia</u> L. Common cattail Broad-leaved cattail	Rare	Wet swale
<u>GRAMINEAE</u> Grass family		
<u>Aira caryophyllea</u> L. ( <u>Aspris caryophyllea</u> Nash) Silver hairgrass	Common	Slope, on shallow soil
<u>Avena barbata</u> Brot. Slender wild oat	Very common	Slope, especially south
<u>Avena fatua</u> L. Wild oat	Rare	Slope
<u>Briza minor</u> L. Little quakinggrass	Common	Swale
<u>Bromus arenarius</u> Labill. Australian brome	Common	Slope, especially south
<u>Bromus mollis</u> L. ( <u>Bromus hordeaceus</u> L.) Soft brome or chess	Abundant	Slope and dry swale
<u>Bromus rigidus</u> Roth. Ripgut brome	Very common	Slope, especially shaded, and dry swale
<u>Bromus rubens</u> L. Foxtail brome Red brome	Very common	Slope, all exposures
<u>Cynodon dactylon</u> (L.) Pers. Bermuda grass	Uncommon	Wet swale
<u>Deschampsia danthonioides</u> (Trin.) Munro ex Benth. Annual hairgrass	Uncommon	Lower slope and swale
<u>Digitaria sanguinalis</u> (L.) Scop. ( <u>Syntherisma sanguinalis</u> Dulae, Fl. Haut.) Hairy crabgrass	Uncommon	Gardens

GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	:	Occurrence	:	Habitat
<u>Distichlis stricta</u> (Torr.) Rydb. Inland saltgrass		Rare		Creek bank
<u>Elymus triticoides</u> Buckl. Creeping wildrye Beardless wildrye		Rare		Dry swale
<u>Eragrostis ciliaris</u> (All.) Lutati Stinkgrass		Rare		Barnyard and garden
<u>Eragrostis diffusa</u> Buckl. Spreading lovegrass		Rare		Barnyard
<u>Festuca confusa</u> Piper Klickitat fescue Hairy-leaved fescue		Uncommon		Slope
<u>Festuca grayi</u> (Abrams) Piper Gray's fescue		Common		Slope, especially south
<u>Festuca megalura</u> Nutt. Foxtail fescue		Abundant		Slope, all exposures and dry swale
<u>Festuca pacifica</u> Piper Pacific fescue		Uncommon		Slope, especially north
<u>Festuca reflexa</u> Buckl. Twoflower fescue		Uncommon		Slope, especially south
<u>Gastridium ventricosum</u> (Gouan) Schinz and Thell Nitgrass		Common		Slope, on shallow soil
<u>Hordeum brachyantherum</u> Nevski ( <u>Hordeum nodosum</u> L.) Meadow barley		Uncommon		Dry swale
<u>Hordeum hystrich</u> Roth. ( <u>Hordeum gussonianum</u> Parl.) Mediterranean barley		Very common		Wet swale

## GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	:	Occurrence	:	Habitat
<u>Hordeum leporinum</u> Link ( <u>Hordeum murinum</u> L.) Mouse barley		Common		Disturbed soil or lower slope
Common foxtail				
<u>Koeleria phleoides</u> (Vill.) Pers. Annual koeleria		Rare		Swale
<u>Lolium multiflorum</u> Lam. Italian ryegrass		Seeded		Swale and lower slope
Annual ryegrass				
<u>Melica californica</u> Scribn. California melicgrass		Uncommon		Rock outcrop
<u>Melica imperfecta</u> Trin. Coastrange melicgrass		Uncommon		Rock outcrop
Small-flowered melicgrass				
<u>Oryzopsis miliacea</u> (L.) Benth. Smilo		Seeded		Lower slope
<u>Panicum capillare occidentale</u> Rydb. Common witchgrass		Uncommon		Swale
<u>Phalaris californica</u> Hook. and Arn. California canarygrass		Rare		
<u>Phalaris caroliniana</u> Walt. Carolina canarygrass		Uncommon		Wet swale
<u>Phalaris coerulescens</u> Sunol grass		Seeded		Lower slope and swale
<u>Phalaris tuberosa stenoptera</u> (Hack.) Hitchc. Hardinggrass		Seeded		Swale
<u>Poa annua</u> L. Annual bluegrass		Common		Swale

## GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	:	Occurrence	:	Habitat
<u>Poa scabrella</u> (Thurb.) Benth. ex Vassey Pine bluegrass		Common		Slope, especially north
<u>Polypogon monspeliensis</u> (L.) Desf. Rabbitfoot polypogon Beardgrass		Common		Creekbed
<u>Scribneria bolanderi</u> (Thurb.) Hack. Scribneria		Rare		Slope
<u>Setaria viridis</u> (L.) Beauv. Green bristlegrass		Uncommon		Gardens
<u>Sorghum halepense</u> (L.) Pers. Johnsongrass		Rare		Swale
<u>Stipa cernua</u> Stebbins and Love. Nodding stipa		Seeded		Slope
<u>Stipa pulchra</u> Hitchc. California needlegrass Purple stipa		Seeded		Slope

## CYPERACEAE Sedge family

<u>Cyperus inflexus</u> Muhl. Flatsedge Awned cyperus	Uncommon	Creekbed
<u>Cyperus vegetus</u> Willd. ( <u>Cyperus virens</u> ) Green flatsedge Tall cyperus	Uncommon	Creekbed
<u>Eleocharis macrostachya</u> Britton ( <u>Eleocharis palustris</u> R. and S.) Spikesedge Common spikerush	Common	Wet swale

GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	Occurrence	Habitat
<u>LEMNACEAE</u> Duckweed family		
<u>Lemna</u> sp. Duckweed	Uncommon	Seep
<u>JUNCACEAE</u> Rush family		
<u>Juncus bufonius</u> L. Toad rush	Common	Dry swale
<u>Juncus oxymeris</u> Engelm. Slenderleaf rush Pointed rush	Common	Wet swale
<u>Juncus macrophyllus</u> Coville Long-leaved rush	Common	Wet swale

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Pityrogramma triangularis</u> (Kaulf.) Maxon ( <u>Gymnogramme triangularis</u> Kaulf.) Goldfern	Common	Shaded rock outcrop
<u>Pellaea mucronata</u> (D.C. Eaton) D.C. Eaton Birdsfoot cliffbrake	Common	Shaded rock outcrop
<u>Allium hyalinum</u> Curran Eldorado onion Paper-flowered onion	Uncommon	Slope
<u>Brodiaea capitata</u> Benth. ( <u>Dichelostemma capitatum</u> [Benth.] Wood) Bluedicks brodia Common brodia	Very common	Slope
<u>Brodiaea coronaria</u> (Salisb.) Engler Harvest brodia	Common	Swale and lower slope
<u>Brodiaea laxa</u> (Benth.) Wats. ( <u>Triteleia laxa</u> Benth.) Grassnut brodia	Uncommon	Slope
<u>Brodiaea volubilis</u> (Kell.) Baker ( <u>Dichelostemma californicum</u> [Torr.] Wood) Vine brodia Twining brodia Snake lily	Uncommon	Steep rocky slope
<u>Calochortus luteus</u> Dougl. Yellow mariposa	Uncommon	Slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Calochortus luteus oculatus</u> Wats. Mariposa	Uncommon	Slope
<u>Chlorogalum pomeridianum</u> (DC.) Kunth. Common soapplant Amole soapplant	Common	Rock outcrop
<u>Muilla tenuis</u> Congdon ( <u>Muilla maritima</u> [Torr.] Wats.) Muilla Common muilla	Common	Slope
<u>POLYGONACEAE</u> Buckwheat family		
<u>Chorizanthe membranacea</u> Benth. Pink chorizanthe Spineflower	Common	Slope, on shallow soil
<u>Chorizanthe stellulata</u> Benth. Starlet chorizanthe Spineflower	Common	Slope, on shallow soil
<u>Eriogonum gracillimum</u> Wats. Slender eriogonum	Uncommon	Slope
<u>Eriogonum nudum</u> Benth. Barestem eriogonum	Uncommon	Slope
<u>Eriogonum virgatum</u> Benth. Virgate eriogonum	Common	Slope
<u>Polygonum aviculare</u> L. Prostrate knotweed Knotweed Knotgrass	Uncommon	Barnyard and gardens
<u>Polygonum punctatum</u> Elliot ( <u>Polygonum acre</u> H.B.K.) Dotted smartweed Water smartweed	Uncommon	Creekbed

## FORBS

Botanical and common name	:	Occurrence	:	Habitat
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Pterostegia drymariooides  
Fisch. and Mey.  
Pterostegia

Common

Shaded slope

Rumex crispus L.  
Curly dock

Common

Creekbed

### CHENOPODEACEAE Goosefoot family

Chenopodium album L.  
Lambsquarters goosefoot

Uncommon

Disturbed soil

Chenopodium ambrosioides  
chilense (Schrad.) Spegaz.  
Wormseed goosefoot,  
Pigweed

Uncommon

Disturbed soil

Chenopodium leptophyllum Nutt.  
Slimleaf goosefoot

Common

Disturbed soil

Chenopodium pumilio R. Br.  
Goosefoot

Uncommon

Disturbed soil

### AMARANTHACEAE Amaranth family

Amaranthus graecizans L.  
Tumbleweed amaranthus  
Tumbling pigweed

Uncommon

Disturbed soil

Amaranthus retroflexus L.  
Redroot amaranthus  
Rough pigweed

Uncommon

Disturbed soil

### AIZOACEAE Carpetweed family

Mollugo verticillata L.  
Carpetweed  
Indian chickweed

Uncommon

Seep

## FORBS

Botanical and common name	:	Occurrence	:	Habitat
	:		:	

PORTULACACEAE Purslane family

<u>Calindrina caulescens</u> <u>menziesii</u> Gray ( <u>C. ciliata</u> var. <u>menziesii</u> [Hook.] J.F. Macbride) Redmaids	Very common	Slope
<u>Montia fontana</u> L. Indian lettuce Water chickweed	Common	Wet swale
<u>Montia perfoliata</u> (Donn.) Howell Indian lettuce Miners' lettuce	Common	Shaded slope
<u>Portulaca oleracea</u> L. Common purslane	Uncommon	Gardens

CARYOPHYLLACEAE Chickweed family

<u>Arenaria douglasii</u> Fenzl. Douglas sandwort	Uncommon	Slope
<u>Cerastium viscosum</u> L. Sticky cerastium Mouse-ear chickweed	Common	Lower slope
<u>Herniaria cinerea</u> DC. Gray burstwort Gray herniaria	Uncommon	Slope
<u>Sagina apetala barbata</u> Fenzl. Dwarf pearlwort	Uncommon	Slope
<u>Silene gallica</u> L. French silene Common catchfly Windmill pink	Very common	Slope
<u>Spergula arvensis</u> L. Corn spurry	Uncommon	Lower slope and dry swale

## FORBS

Botanical and common name	:	Occurrence	:	Habitat
	:		:	

Spergularia marina (L.) Griseb.  
 (S. salina J. and C.)  
 Saltmarsh sand spurry

Stellaria media (L.) Cyrill.  
 Chickweed

RANUNCULACEAE Buttercup family

Delphinium decorum patens  
 (Benth.) Gray  
 Yellowtinge larkspur  
 Coast larkspur

Delphinium hansenii Greene  
 Hansen larkspur

Ranunculus aquatilis L.  
 (R. aquatilis var. capillaceus  
 [Thuill.] DC.)  
 Watercrowfoot buttercup  
 Water buttercup

Ranunculus californicus Benth.  
 California buttercup

Ranunculus hebecarpus Hook.  
 and Arn.  
 Pubescent-fruited buttercup

PAPAVERACEAE Poppy family

Eschscholtzia caespitosa Benth.  
 Gold poppy

Eschscholzia californica Cham.  
 California poppy

Eschscholzia lobbii Greene  
 Fryingpans

## FORBS

Botanical and common name	:	Occurrence	:	Habitat
<u>Papaver heterophyllum</u> (Benth.) Greene Wind poppy		Uncommon		Shady north slope
<u>Platystemon californicus</u> Benth. Creamcups platystemon		Common		Creekbank
<u>CRUCIFERAE</u> Mustard family				
<u>Arabis maxima</u> Greene ( <u>Arabis arcuata</u> Gray ( <u>Arabis holboellii</u> var. <u>arcuata</u> Jepson) Rockcress		Uncommon		Rocky slope
<u>Athysanus pusillus</u> (Hook.) Greene Dwarf athysanus		Common		Slope
<u>Capsella bursa-pastoris</u> (L.) Medic. Shepherdspurse		Common		Slope
<u>Lepidium nitidum</u> Nutt. Tongue pepperweed Shining peppergrass		Common		Swale
<u>Radicula nasturtium-aquaticum</u> (L.) Britt. and Rendle Watercress		Uncommon		Seep
<u>Sinapis arvensis</u> L. ( <u>Brassica arvensis</u> [L.] B.S.P.) Field charlock		Uncommon		Creekbank
<u>Streptanthus coulteri</u> (Wats.) Greene Twistflower		Common		Slope
<u>Streptanthus diversifolius</u> Wats. Varied-leaved streptanthus		Uncommon		Slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Streptanthus tortuosus</u> Kell. Mountain streptanthus	Uncommon	Slope
<u>Streptanthus heterophyllus</u> Nutt. San Diego streptanthus	Uncommon	Slope
<u>Thysanocarpus curvipes</u> Hook. Hairy fringedpod	Common	Slope
<u>Tropidocarpum gracile</u> Hook. Dobie pod	Common	Slope
<b>CRASSULACEAE</b> Stonecrop family		
<u>Tillaea erecta</u> Hook. and Arn. Sand pygmyweed	Very common	Slope
<b>SAXIFRAGACEAE</b> Saxifrage family		
<u>Lithophragma heterophylla</u> (Hook. and Arn.) Torr. and Gray. Hillstar	Common	Shady north slope
<u>Saxifraga californica</u> Greene California saxifrage	Uncommon	Slope, especially north
<u>Saxifraga integrifolia</u> Hook. Hooker's saxifrage	Uncommon	Slope, especially north
<b>ROSACEAE</b> Rose family		
<u>Alchemilla occidentalis</u> Nutt. ( <u>A. arvensis</u> [L.] Scop.) Field ladysmantle Western ladysmantle	Common	Slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>LEGUMINOSAE</u> Pea family		
<u>Astragalus asymmetricus</u> Sheldon ( <u>A. leucophyllum</u> Torr. and Gray) Woolyleaf loco San Joaquin locoweed	Rare	Slope
<u>Astragalus gambelianus</u> Sheldon ( <u>A. nigrescens</u> Nutt.) Gambel's dwarf locoweed	Common	Slope, especially south
<u>Lotus americanus</u> (Nutt.) Bisch. ( <u>Hosackia americana</u> [Nutt.] Piper) Spanish clover Deervetch	Very common	Lower slope
<u>Lotus argophyllus decorus</u> (Jtn.) Ottley ( <u>Hosackia argophylla</u> Gray) Silver deervetch	Uncommon	Slope
<u>Lotus micranthus</u> Benth. ( <u>Hosackia parviflora</u> Benth.) Littleflower deervetch	Uncommon	Slope
<u>Lotus scoparius</u> (Nutt.) Ottley ( <u>Hosackia glabra</u> [Vogel] Torr.) Broom deervetch Deerweed	Uncommon	Slope, especially north
<u>Lotus strigosus</u> (Nutt.) Greene ( <u>Hosackia strigosa</u> Nutt.) Fine-leaved deervetch	Common	Slope, especially south
<u>Lotus subpinnatus</u> Lag. ( <u>Hosackia subpinnata</u> [Lag.] Torr. and Gray) Chilean deervetch Hairy lotus	Common	Slope
<u>Lupinus albifrons</u> Benth. Whiteface lupine Bush lupine	Common	Rocky slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Lupinus benthami</u> Hel. Spider lupine Bentham's lupine	Common	Slope
<u>Lupinus bicolor</u> Lindl. Bicolor lupine Ground lupine	Very common	Slope
<u>Lupinus densiflorus</u> Benth. Gully lupine Dense-flowered lupine	Uncommon	Slope
<u>Lupinus formosus</u> Greene Lunara lupine Summer lupine	Common	Slope
<u>Lupinus nanus</u> Dougl. Sky lupine	Uncommon	Slope
<u>Medicago apiculata</u> Willd. Smoothbur medic	Uncommon	Lower slope and dry swale
<u>Medicago hispida</u> Gaertn. California burclover	Uncommon, except as seeded	Lower slope and dry swale
<u>Trifolium albopurpureum</u> Torr. and Gray. Rancheria clover Indian clover	Uncommon	Slope
<u>Trifolium amplexens</u> Torr. and Gray. Bladder clover Pale sack clover	Uncommon	Slope
<u>Trifolium ciliolatum</u> Benth. ( <u>Trifolium ciliatum</u> Nutt.) Foothill clover Tree clover	Common	Lower slope
<u>Trifolium depauperatum</u> Depauperate clover Dwarf sack clover	Uncommon	Slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Trifolium dichotomum</u> Hook. and Arn. Branched Indian clover	Uncommon	Slope, especially north
<u>Trifolium hirtum</u> All. Rose clover	Where seeded	Lower slope
<u>Trifolium incarnatum</u> Crimson clover	Where seeded	Dry swale
<u>Trifolium microcephalum</u> Pursh. Littlehead clover	Very common	Slope
<u>Trifolium obtusiflorum</u> Hook. Clammy clover Creek clover	Uncommon	Creekbed
<u>Trifolium subterraneum</u> Subterranean clover	Where seeded	Dry swale
<u>Trifolium tridentatum</u> Lindl. Tomcat clover	Common	Lower slope
<u>Trifolium variegatum</u> Nutt. Whitetip clover	Very common	Wet swale

LINACEAE Flax family

<u>Linum usitatissimum</u> L. Common flax	Uncommon	Slope
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OXALIDACEAE Oxalis family

<u>Oxalis corniculata</u> L. Creeping oxalis Wood sorrel	Uncommon	Gardens and shaded slope
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GERANIACEAE Geranium family

<u>Erodium botrys</u> Bertol. Big heronbill Broadleaf filaree	Abundant	Slope and dry swale
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## FORBS

Botanical and common name	:	Occurrence	:	Habitat
<u>Erodium cicutarium</u> L'Her. Alfileria Redstem filaree		Common		Lower slope
<u>Erodium obtusiplicatum</u> (Maire, Weiller and Wilczek) J.T. Howell ( <u>E. botrys</u> f. <u>montanum</u> Brumhard) Big heronbill Broadleaf filaree		Very common		Slope
<u>Erodium moschatum</u> L'Her. Musk heronbill Whitestem filaree		Uncommon		Lower slope
<u>Geranium carolinianum</u> L. Carolina geranium		Uncommon		Lower slope
<u>Geranium sphaerospermum</u> Fern. Geranium		Uncommon		Lower slope
<u>LIMNANTHACEAE</u> Meadowfoam family				
<u>Limnanthes douglasii</u> R. Br. Douglas meadowfoam		Common		Creekbank
<u>Limnanthes montana</u> Mountain meadowfoam		Uncommon		Creekbank
<u>EUPHORBIACEAE</u> Spurge family				
<u>Euphorbia ocellata</u> D. and H. Euphorbia		Common		Slope
<u>ZYGOPHYLLACEAE</u> Caltrops family				
<u>Tribulus terrestris</u> L. Puncturevine Goathead		Rare		Disturbed soil

## FORBS

Botanical and common name	Occurrence	Habitat
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<u>MALVACEAE</u> Mallow family		
<u>Malva parviflora</u> L. Little mallow Cheeseweed	Uncommon	Disturbed soil
<u>Sidalcea hartwegii</u> Gray Checkermallow	Common	Lower slope and swale
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<u>LOASACEAE</u> Loasa family		
<u>Mentzelia lindleyi</u> T. and G. Lindley mentzelia	Rare	Slope, especially south
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<u>DATISCACEAE</u> Datisca family		
<u>Datisca glomerata</u> Brew. and Wats. Durangoroot	Rare	Creekbed
<hr/>		
<u>CUCURBITACEAE</u> Gourd family		
<u>Cucurbita foetidissima</u> H.B.K. Calabazilla	Rare	Slope
<u>Echinocystis fabacea</u> Naud. Mockcucumber	Common	Slope, climbing on shrubs
<u>Echinocystis macrocarpa</u> Greene Chilicothe mockcucumber	Common	Slope, climbing on shrubs
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<u>LYTHRACEAE</u> Loosestrife family		
<u>Lythrum hyssipifolia</u> L. Hyssop lythrum Loosestrife	Common	Swale, especially on disturbed soil
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<u>ONAGRACEAE</u> Evening primrose family		
<u>Boisduvalia densiflora</u> (Lindl.) Wats. Dense spikeprimrose	Uncommon	Swale

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Boisduvalia stricta</u> (Gray) Greene Brook spikeprimrose	Uncommon	Swale
<u>Epilobium paniculatum</u> Nutt. Autumn willowweed	Uncommon	Slope
<u>Clarkia dudleyana</u> Abrams ( <u>Godetia dudleyana</u> Abrams) Dudley's godetia	Common	Slope, especially north
<u>Clarkia elegans</u> Dougl. Rose clarkia	Common	Slope, especially north
<u>Clarkia nitens</u> Lewis and Lewis ( <u>Godetia nitens</u> ) Clarkia	Common	Slope
<u>Clarkia purpurea quadrivulnera</u> (Dougl.) Lewis and Lewis ( <u>Godetia quadrivulnera</u> [Dougl.] Spach.) Clarkia	Uncommon	Slope
<u>Clarkia williamsonii</u> (Durand and Hilgard) Lewis and Lewis ( <u>Godetia viminea</u> Spach.) Orchid godetia	Common	Slope, especially north
<u>Oenothera dentata</u> Cav. Field primrose	Common	Slope, especially south
<u>Oenothera graciliflora</u> Hook. and Arn. Slender primrose	Common	Lower slope
<u>UMBELLIFERAE</u> Parsley family		
<u>Daucus pusillus</u> Michx. Southwestern carrot Rattlesnake weed	Common	Slope
<u>Eryngium globosum</u> Jepson Button snakeweed	Common	Swale

## FORBS

Botanical and common name	:	Occurrence	:	Habitat
<u>Lomatium utriculatum</u> (Nutt.) Colt and Rose ( <u>Cogswellia</u> ) Common lomatium		Uncommon		Slope, especially north
<u>Perideridia pringlei</u> (C. and R.) Nels. and Macbr. ( <u>Eulophus pringlei</u> C. and R.) Pringle's yampah		Rare		Slope
<u>Sanicula bipinnatifida</u> Dougl. Purple sanicle		Common		Slope
<u>Sanicula tuberosa</u> Torr. Tuber sanicle		Common		Rock outcrop

PRIMULACEAE Primrose family

<u>Dodecatheon pulchellum</u> Greene Dwarf shootingstar		Uncommon	Shaded slope
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GENTIANACEAE Gentian family

<u>Centaurium venustum</u> (Gray) Rob. Pink centaurium		Common	Dry swale
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ASCLEPIADACEAE Milkweed family

<u>Asclepias cordifolia</u> (Benth.) Jepson Purple milkweed		Uncommon	Slope
<u>Asclepias mexicana</u> Cav. Mexican milkweed		Uncommon	Dry swale or lower slope
<u>Asclepias vestita</u> Hook. and Arn. Wooly milkweed		Common	Slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Eriastrum pluriflorum</u> (Heller) H. L. Mason ( <u>Gilia brauntonii</u> Jepson and Mason) Gilia	Uncommon	Slope, on shallow soil
<u>Gilia capitata</u> Dougl. Globe gilia	Uncommon	Slope
<u>Gilia tricolor</u> Benth. Birdseye gilia	Very common	Slope
<u>Linanthus bicolor</u> (Nutt.) Greene Bicolored linanthus	Common	Slope
<u>Linanthus ciliatus</u> (Benth.) Greene Bristly-leaved linanthus	Common	Slope
<u>Linanthus dichotomus</u> Benth. Eveningsnow linanthus	Uncommon	Slope, especially north
<u>Linanthus filipes</u> (Benth.) Greene Filiform linanthus	Common	Slope, on shallow soil
<u>Linanthus serrulatus</u> Greene Madera linanthus	Uncommon	Slope, especially north
<u>Navarretia pubescens</u> (Benth.) Hook. and Arn. Downy navarretia	Common	Slope, on shallow soil

## HYDROPHYLACEAE Phacelia family

<u>Nemophila aurita</u> Lindl. Purple nemophila	Uncommon	Shaded slope
<u>Nemophila heterophylla</u> F. and M. Small white nemophila	Common	Shaded slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Nemophila maculata</u> Benth. Spotted nemophila Fivespot nemophila	Uncommon	Creekbank
<u>Nemophila menziesii</u> Hook. and Arn. Babyblue-eyes nemophila	Common	Lower slope
<u>Phacelia californica</u> Cham. California phacelia	Uncommon	Rock outcrop
<u>Phacelia hispida</u> Gray Caterpillar phacelia	Common	Rock outcrop
<u>Phacelia platyloba</u> Gray Broadlobed phacelia	Uncommon	Shaded slope
 <u>BORAGINACEAE</u> Borage family		
<u>Allocarya trachycarpa</u> (Gray) Greene Rough-fruited allocarya	Common	Wet swale
<u>Amsinckia douglasiana</u> DC. Douglas fiddleneck	Common	Shaded slope
<u>Amsinckia intermedia</u> Fisch. and Mey. Fireweed fiddleneck	Common	Slope
<u>Amsinckia retrorsa</u> Suksd. Rigid fiddleneck Harvest fireweed	Uncommon	Slope
<u>Cryptantha flaccida</u> (Dougl.) Greene Cryptantha	Common	Slope
<u>Cryptantha hooveri</u> I. M. Johnston Hoover's cryptantha	Uncommon	Slope
<u>Heliotropium curassauicum</u> L. Salt heliotrope	Rare	Disturbed soil

## FORBS

Botanical and common name	:	Occurrence	:	Habitat
	:		:	
<u>Plagiobothrys canescens</u> Benth. Valley popcornflower		Common		Lower slope and dry swale
<u>Plagiobothrys nothofulvus</u> Gray Redstain popcornflower		Very common		Slope and dry swale
<u>Plagiobothrys tenellus</u> Gray Slender popcornflower		Common		Slope, on shallow soil

VERBENACEAE Verbena family

<u>Verbena lasiostachys</u> Link. ( <u>Verbena prostrata</u> R. Br.) Western verbena		Uncommon	Slope
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LABIATAE Mint family

<u>Marrubium vulgare</u> L. Common hoarhound		Uncommon	Disturbed soil
<u>Monardella candicans</u> Benth. Sierra monardella		Common	Swale
<u>Monardella lanceolata</u> Gray Mustang mint		Uncommon	Swale
<u>Pogogyne douglasii</u> Benth. Douglas pogogyne		Common	Swale
<u>Salvia carduacea</u> Benth. Thistle sage		Common	Slope
<u>Salvia columbariae</u> Benth. California chia		Uncommon	Shaded slope
<u>Scutellaria bolanderi</u> Gray Bolander's skullcap		Uncommon	Wet swale and seeps
<u>Scutellaria tuberosa</u> Benth. Tuberous skullcap		Uncommon	Shaded slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Stachys albens</u> Gray Whitehedge nettle	Uncommon	Seeps
<u>Trichostema lanceolatum</u> Benth. Vinegar bluecurls	Common	Slope
<u>Trichostoma oblongum</u> Benth. Mountain bluecurls	Uncommon	Swale
<u>SOLANACEAE</u> Nightshade family		
<u>Datura meteloides</u> DC. Sacred datura Tolguacha	Uncommon	Disturbed soil
<u>Nicotiana attenuata</u> Torr. Coyote tobacco	Uncommon	Disturbed soil or swale
<u>Solanum nigrum</u> L. Black nightshade	Rare	Lower slope
<u>Solanum xanthi</u> Gray Purple nightshade	Uncommon	Lower slope
<u>SCROPHULARIACEAE</u> Figwort family		
<u>Antirrhinum cornutum</u> Benth. Spurred snapdragon	Uncommon	Slope, especially south
<u>Collinsia bartsiaeefolia</u> Benth. Seaside collinsia	Uncommon	Slope
<u>Collinsia bicolor</u> Benth. Pagoda collinsia Chinese houses	Common	Shaded slope
<u>Collinsia tinctoria</u> Hartw. Brownstain collinsia Sticky Chinese houses	Uncommon	Shaded creekbed

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Cordylanthus compactus</u> Pennell Muleweed	Uncommon	Rocky slope
<u>Mimulus pilosus</u> (Benth.) Wats. Downy mimulus	Uncommon	Lower slope
<u>Mimulus bolanderi</u> Gray Tobacco mimulus	Uncommon	Shaded slope
<u>Mimulus floribundus</u> Dougl. Monkeyflower	Uncommon	Wet swale
<u>Mimulus nasutus</u> Greene ( <u>Mimulus guttatus</u> <u>nasutus</u> Jepson) Common monkeyflower	Common	Wet swale
<u>Mimulus nanus</u> Hook. and Arn. Dwarf monkeyflower	Uncommon	Slope
<u>Mimulus viscidus</u> Congdon Viscid monkeyflower	Uncommon	Slope
<u>Mimulus pictus</u> (Curran) Gray Painted monkeyflower	Uncommon	Slope
<u>Orthocarpus erianthus micranthus</u> (Gray) Jepson Johnnytuck owlclover	Common	Slope
<u>Orthocarpus linearilobus</u> Benth. Pallid owlclover	Common	Slope
<u>Orthocarpus purpurascens</u> Benth. Escobita owlclover Common owlclover	Common	Slope
<u>Penstemon breviflorus</u> Lindl. Stubflower penstemon	Common	Rocky slope
<u>Scrophularia californica</u> Cham. and Sch. California figwort	Uncommon	Rock outcrop

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Verbascum</u> <u>blattaria</u> L. Moth mullein	Rare	Lower slope
<u>PLANTAGINACEAE</u> Plantain family		
<u>Plantago</u> <u>erecta</u> Morris Dotseed plantain	Very common	Slope
<u>RUBIACEAE</u> Madder family		
<u>Galium</u> <u>aparine</u> L. Catchweed bedstraw	Common	Shaded slope or swale
<u>Galium</u> <u>nuttalli</u> Gray Nuttall bedstraw	Uncommon	Shaded slope or swale
<u>VALERIANACEAE</u> Valerian family		
<u>Plectritis</u> <u>ciliosa</u> (Greene) Jepson Plectritis	Common	Shady lower slope or creekbank
<u>Plectritis</u> <u>macrocera</u> T. and G. Longhorn plectritis	Uncommon	Shady lower slope
<u>CAMPANULACEAE</u> Bellflower family		
<u>Githopsis</u> <u>specularioides</u> Nutt. Githopsis	Uncommon	Slope
<u>LOBELIACEAE</u> Lobelia family		
<u>Downingia</u> <u>bicornuta</u> Gray Downingia	Uncommon	Wet swale
<u>Nemacladus</u> <u>rigidus</u> <u>interior</u> Munz Nemacladus	Uncommon	Lower slope or swale

## FORBS

Botanical and common name	Occurrence	Habitat
<u>COMPOSITAE</u> Sunflower family		
<u>Achillea lanulosa</u> L. Western yarrow	Uncommon	Lower slope
<u>Agoseris heterophylla</u> (Nutt.) Greene Annual agoseris	Common	Slope
<u>Anaphalis margaritacea</u> (L.) B. and H. Common pearleverlasting	Uncommon	Rocky slope
<u>Baeria chrysostoma gracilis</u> Hall Branchy goldfields	Very common	Slope
<u>Baeria uliginosa</u> (Nutt.) Gray Goldfields	Uncommon	Slope
<u>Balsamorhiza deltoidea</u> Nutt. Balsamroot	Rare	North slope
<u>Bidens frondosa</u> L. Devils beggarticks	Uncommon	Lower slope
<u>Brickellia californica</u> T. and G. Californica brikellia	Uncommon	Rocky slope
<u>Calycadenia mollis</u> Gray Rosinweed	Common	Slope
<u>Calycadenia multiglandulosa</u> DC. Rosinweed	Common	Slope
<u>Calycadenia villosa</u> DC. Rosinweed	Uncommon	Slope
<u>Centaurea melitensis</u> L. Malta centaurea Tocalote Napa thistle	Common	Slope
<u>Centromadia pungens</u> (T. and G.) Greene Common spikeweed	Uncommon	Lower slope

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Chaenactis glabriuscula</u> DC. Chaenactis	Common	Slope
<u>Cirsium occidentale</u> (Nutt.) Jepson Western thistle	Common	Slope
<u>Coreopsis bigelovii</u> (Gray) Hall Bigelow coreopsis	Uncommon	Shaded slope
<u>Coreopsis douglasii</u> (DC.) Hall Douglas coreopsis	Uncommon	Shaded slope
<u>Coreopsis stillmani</u> (Gray) Jepson Stillman coreopsis	Uncommon	Shaded slope
<u>Erigeron canadensis</u> L. Horseweed fleabane	Uncommon	Disturbed soil
<u>Erigeron foliosus stenophyllum</u> (Nutt.) Gray Leafy fleabane	Uncommon	Rocky slope
<u>Eriophyllum confertiflorum</u> Gray Goldenarrow eriophyllum	Common	Rocky slope
<u>Evax caulescens</u> Benth. Evax	Uncommon	Slope, on shallow soil
<u>Filago gallica</u> L. Fluffweed	Common	Slope
<u>Gnaphalium californicum</u> Gray California everlasting	Uncommon	Rocky slope
<u>Gnaphalium palustre</u> Nutt. Lowland cudweed	Uncommon	Lower slope
<u>Grindelia camporum</u> Greene Field gumweed	Uncommon	Slope, especially south

## FORBS

Botanical and common name	Occurrence	Habitat
<u>Hemizonia heermannii</u> ( <u>Hemizonia virgata</u> heermannii Jepson) Yellow tarweed	Very common	Lower slope and swale
<u>Hemizonia kelloggii</u> Greene ( <u>Hemizonia wrightii</u> Gray) Wright's tarweed	Common	Rocky slope
<u>Hypochoeris glabra</u> L. Smooth catsear	Very common	Lower slope and dry swale
<u>Lactuca serriola</u> ( <u>Lactuca scariola</u> L.) Prickly lettuce	Uncommon	Disturbed soil
<u>Layia gaillardiooides</u> Hook. and Arn. Layia	Common	Shady slope
<u>Layia pentachaeta hansenii</u> (Jepson) Keck Layia Tidytips	Common	Shady slope
<u>Lessingia germanorum vallicola</u> Cham. Lessingia	Common	Slope
<u>Lessingia</u> sp. Lessingia	Common	Slope
<u>Madia elegans densifolia</u> Jepson Madia	Uncommon	Creekbed
<u>Matricaria matricariooides</u> (Less.) Porter Pineappleweed	Uncommon	Disturbed soil
<u>Micropus californicus</u> F. and M. Micropus	Common	Slope, on shallow soil
<u>Pentachaeta exilis</u> Gray Pentachaeta	Common	Slope, on shallow soil

## FORBS

Botanical and common name	:	Occurrence	:	Habitat
<u>Senecio douglasii</u> DC. Douglas groundsel		Uncommon		Slope
<u>Silybum marianum</u> (L.) Gaertn. Milkthistle		Rare		Creekbank
<u>Stephanomeria pauciflora</u> (Torr.) Nels. Wirelettuce		Uncommon		Slope
<u>Uropappus lindeyi</u> Nutt. Uropappus		Uncommon		Lower slope
<u>Xanthium canadense</u> Mill. Cocklebur		Uncommon		Creekbed

## WOODY PLANTS

Botanical and common name	Occurrence	Habitat
<u>PINACEAE</u> Pine family		
<u>Pinus sabiniana</u> Dougl. Digger pine	Very common	Slope
<u>SALICACEAE</u> Willow family		
<u>Populus fremontii</u> Wats. Fremont cottonwood	Uncommon	Creekbank
<u>Salix laevigata</u> Bebb. Red willow	Uncommon	Creekbank
<u>FAGACEAE</u> Oak family		
<u>Quercus douglasii</u> Hook. and Arn. Blue oak	Very common	Slope
<u>Quercus morehus</u> Kell. Oracle oak	Rare	Slope
<u>Quercus wislizenii</u> DC. Interior live oak	Very common	Slope
<u>LORANTHACEAE</u> Mistletoe family		
<u>Arceuthobium campylopodium</u> Engelm. Western dwarf mistletoe Pine mistletoe	Common	Parasitic on digger pine
<u>Phoradendron villosum</u> Nutt. Common mistletoe	Very common	Parasitic on blue oak and live oak
<u>ANACARDIACEAE</u> Sumac family		
<u>Rhus diversiloba</u> T. and G. Pacific poisonoak	Common	Rocky slope

### WOODY PLANTS

Botanical and common name	:	Occurrence	:	Habitat
<u>Rhus trilobata</u> Nutt. Skunkbush sumac Squawbush		Rare		Slope
<u>SAPINDACEAE</u> Buckeye family				
<u>Aesculus californica</u> (Spach) Nutt. California buckeye		Common		Slope
<u>RHAMNACEAE</u> Buckthorn family				
<u>Ceanothus cuneatus</u> (Hook.) Nutt. Buckbrush ceanothus Wedgeleaf ceanothus		Very common		Slope, especially north
<u>Ceanothus leucodermis</u> Greene ( <u>Ceanothus divaricatus</u> ) Chaparral whitethorn ceanothus		Uncommon		Slope
<u>Rhamnus californica cuspidata</u> (Greene) Wolf California buckthorn California coffeeberry		Common		Slope
<u>Rhamnus crocea ilicifolia</u> Greene Hollyleaf buckthorn Redberry buckthorn		Common		Slope
<u>ERICACEAE</u> Heath family				
<u>Arctostaphylos mariposa</u> Dudley Mariposa manzanita		Common		Rocky slope
<u>HYDROPHYLLACEAE</u> Phacelia family				
<u>Eriodictyon californicum</u> (Hook. and Arn.) Greene Yerba santa		Uncommon		Slope

## WOODY PLANTS

Botanical and common name	:	Occurrence	:	Habitat
	:		:	

RUBIACEAE Madder family

Cephalanthus occidentalis L. Uncommon Seep  
Common buttonbush

CAPRIFOLIACEAE Honeysuckle family

Lonicera interrupta Benth. Rare Slope, especially  
Chaparral honeysuckle north

Sambucus caerulea Raf. Uncommon Rocky slope  
(Sambucus glauca Nutt.)  
Blueberry elder  
Blue elderberry